

# EVALUATION OF THE AWARENESS OF THE PHYSICIANS ON NEGLIGENCE AND ABUSE OF THE ELDERLY PATIENTS ADMITTED TO EMERGENCY DEPARTMENT

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## Abstract

**INTRODUCTION:** With the increase in the population of the elderly, the negligence and abuse of the elderly (NAE) is increasing at a great pace. Although the rates of NAE in the elderly admitted to emergency department (ED) is more than the estimated rates, the diagnosis and reporting of such cases are extremely rare. The primary aim of the present study is to evaluate the NAE status in the elderly admitted to ED, the awareness in ED physicians, the attitudes towards these cases and the knowledge levels in this field.

**METHODS:** An electronic questionnaire form that was used as the data collection tool consisted of 19 questions and 2 sections. To call for participation, the questionnaires used in the study were shared with the ED physicians in an online manner between December 2017 and April 2018. The data were analyzed with the SPSS 23.0 Windows computer program with definitive statistics.

**RESULTS:** A total of 69.4% of the participants faced NAE and 30% did not report this; 79.8% of the participants stated that they had received training in this field and 9% stated that there was a screening test for the abuse of the elderly. A statistically significant difference was determined between those who received course training in this field and those who received training during medicine faculty education and specialist training.

**CONCLUSIONS:** In this study, it was observed that the NAE rates were more than the estimated rates in the elderly admitted to ED. It was understood that ED physicians did not have adequate knowledge in this field. A new curriculum is needed for the training and education in this field.

**KEY WORDS:** elderly and terminally ill, abuse, negligence, emergency medicine.

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## INTRODUCTION

Old age has been accepted as being dependent in terms of health, being less productive in terms of work life, and being at and above the age of 65 in terms of age [1]. With the increasing population of

the elderly, the negligence and abuse of the elderly by their relatives or by people who take care of them appear before us as an increasing problem [2]. The International Network for the Prevention of Elder Abuse and the WHO released the Toronto

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Declaration in 2002 and defined the abuse of the elderly as “The damage given to any elderly who expect trust, and the inappropriate actions that occur once or repeatedly causing stress in the elderly, or the lack of the appropriate behaviors” [3, 4]. The negligence of the elderly is defined as “Not giving the things needed by the elderly such as food, beverages, drugs by their relatives or caregivers, with or without awareness, and behaving in a careless way in fulfilling the responsibilities for the elderly or not fulfilling such responsibilities at all” [5]. NAE is one of the important mortality and morbidity reasons [6–8]. Healthcare employees, especially emergency department (ED) physicians should be careful in detecting this condition [9]. Several tests were developed in the past to detect the elderly abuse [10, 11]. The Hwalek-Sengstock Elder Abuse Screening Test is one of these tests, which measure direct abuse, vulnerability and situational characteristics. It is the most appropriate test for using in hospitals and can be easily applied in a short time period by emergency trauma physicians, geriatricians and even by assistant health staff [12, 13].

Due to many reasons like long-term polyclinic appointments, inadequate healthcare staff, and uninterrupted service of ED, the elderly are taken to ED by their relatives, caregivers or by nursing homes. The excessive intensity in ED, the lack of knowledge in health employees and inadequacy of ED conditions cause that the NAE cases go undetected; and only when there is serious doubt can they be recognized.

The main purpose of this study is to evaluate the awareness and attitudes and knowledge levels of the emergency physicians on NAE in elderly patients who are admitted to ED. Meanwhile, it was also aimed to raise the awareness levels on NAE cases by physicians working in ED. It is important to identify and report the factors affecting NAE, and to take precautions and initiatives to prevent it.

## METHODS

### The Universe and Sampling Selection

Our study is a descriptive study; and was designed as a survey study. The Ethical Board Approval for the study was obtained from Ufuk University, Faculty of Medicine with the number 20171207-6. Emergency medicine academicians, professionals, assistants and general practitioners working at EDs, university hospitals across Turkey, training and research hospitals,

state hospitals and private hospitals constitute the universe of the study; and for this reason, it is not known for sure how many people constitute the universe of the study. Since the number of the people in the universe is not known, the number of the sampling was computed with the  $N = (t_{1-\alpha})^2 \times (pxq) / S^2$  formula [14]. The questionnaire was planned to be conducted between December 2017 and April 2018, and when the number of the adequate participants was reached (500 people), the questionnaire application was ended in February 2018. The ED physicians who could be contacted through the Internet and who agreed to participate in the study were included in the study. Those who could not be contacted through e-mails and who did not agree to participate in the study were excluded from the study.

### The Scales Used in the Study

The electronic questionnaire, which was created by using the data collection tool, consisted of two titles, which were the Sociodemographic Form and the Questionnaire Form. A total of 19 questions were prepared. Some of the questions had 4-Point Likert-type answers. In the Sociodemographic Data Form, the gender, age, occupational status, institution worked, duration of ED work, the number of patients and the number of the elderly patients who were admitted daily, the percentage of abuse and neglect in the elderly applicants, whether they had received any training related to NAE and whether they followed the up-to-date developments, and if they did, how they followed the up-to-date data on this topic were questioned. The following fields were also questioned in the questionnaire; whether or not they faced NAE before; at which stage they diagnosed NAE; whether or not they received training on NAE; the risk factors in the patients in terms of NAE; whether or not they questioned the 14 items of the Hwalek-Sengstock Screening Test in patients who were suspected in terms of NAE; whether or not they had the NAE screening test; and NAE anamnesis and physical examination findings (23 items); which method they applied when they faced NAE; why the NAE reporting was low; and why such cases were not reported.

### The Data Analysis and Statistical Methods

The collected data were recorded in SPSS 23 program and were then analyzed statistically. The descriptive data are given as the number of the participants and percentages. The normal distribution fit-

ness of the variables was examined using the Visual (Histogram and Probability Graphics) and Analytical Methods (Kolmogorov-Smirnov/Shapiro-Wilk tests). The median, 25–75 percentile, and minimum-maximum values were used as descriptors for non-parametric tests. The Mann Whitney U-test was used as a Hypothesis Test in paired groups. The Kruskal Wallis test was used in multiple groups.  $P < 0.05$  was taken as statistically significant.

## RESULTS

A total of 316 (63.2%) participants were male; and 49% ( $n = 245$ ) were between 20–30 years of age. According to the occupational status, 34.4% were specialist doctors, 27.6% were general practitioners, 27.4% were research assistants and 10.6% were academicians. A total of 36% ( $n = 180$ ) worked at state hospitals; and 30.4% ( $n = 152$ ) had been working at ED for 2–5 years. While the daily number of patients admitted to ED where 41% of the participants worked was over 500; the number of the patients who were over the age of 65 admitted to the ED was between 76–250 in 41.6% ( $n = 208$ ) of the participants. While in 51.6% ( $n = 258$ ) of the patients, the percentage of those facing abuse or negligence was below 1%; in 7.2% ( $n = 36$ ), this rate was above 10%. When the place where the participants received training on the negligence and abuse of the elderly was questioned, it was determined that 39.4% ( $n = 197$ ) received this training during their education at the medicine faculty; the others received it during specialization training and at courses; and 19.8% ( $n = 99$ ) did not receive any training at all (Tab. 1).

Statistically significant differences were determined in terms of the awareness levels in the comparisons to the risk factors of the participants who received and who did not receive training, and HS-EAST and awareness both in terms of the risk factors and in anamnesis and FM findings ( $p < 0.001$ ). In further examinations among the groups, it was determined in terms of the awareness of risk factors that those who received training in courses had higher awareness levels than those who did not receive any training; those who received training during specialization education had higher awareness levels than those who received this training in medical faculties; and those who received training during courses had higher awareness levels than those who received this training during medical faculty and specialist period at statistically significant levels.

**Table 1. Characteristics of participants.**

| Characteristics   |                                  | (n) | %    |
|---|----------------------------------|-----|------|
| Sex   | male                             | 316 | 63,2 |
|   | female                           | 184 | 36,8 |
| Age   | 20–30                            | 196 | 39,2 |
|   | 31–40                            | 245 | 49   |
|   | 41–50                            | 49  | 9,8  |
|   | > 50                             | 10  | 2    |
| Status  | physician                        | 138 | 27,6 |
|   | research assistance              | 137 | 27,4 |
|   | emergency medicine specialist    | 172 | 34,4 |
|   | Lecturer                         | 53  | 10,6 |
| Institution   | State hospital                   | 180 | 36   |
|   | research and training hospital   | 132 | 26,4 |
|   | university hospital              | 168 | 33,6 |
|   | other                            | 20  | 4    |
| Work duration for ED  | < 1 age                          | 122 | 24,4 |
|   | 2–5 ages                         | 152 | 30,4 |
|   | 6–10 ages                        | 132 | 26,4 |
|   | > 10 age                         | 94  | 18,8 |
| The number of daily patient admissions                                  | 0–50                             | 14  | 2,8  |
|   | 51–150                           | 107 | 21,4 |
|   | 151–500                          | 174 | 34,8 |
|   | > 500                            | 205 | 41   |
| The number of daily patient over 65 admissions                          | 0–25                             | 65  | 13   |
|   | 26–75                            | 163 | 32,6 |
|   | 76–250                           | 208 | 41,6 |
|   | > 250                            | 64  | 12,8 |
| Percentage of abuse and neglect likelihood reported by elderly patients | %0–1                             | 258 | 51,6 |
|   | %2–5                             | 152 | 30,4 |
|   | %6–10                            | 54  | 10,8 |
|   | >%10                             | 36  | 7,2  |
| Education status about EAN  | faculty of medicine              | 197 | 39,4 |
|   | during the reseach assistantship | 98  | 19,6 |
|   | via a course education           | 106 | 21,2 |
|   | No education                     | 99  | 19,8 |
| Total   |                                  | 500 | 100  |

EAN: Elder Abuse and Neglect.

In terms of the awareness on anamnesis and FM findings, it was determined that those who received training with courses had the highest-level awareness; and those who received training during

**Table 2. Comparison of participants that are educated or not in terms of awareness about risk factors, history and physical examination findings of EAN and HS-EAST scale.**

| Awareness about history and physical examination findings of EAN |                      |         |                         |         |
|--|----------------------|---------|-------------------------|---------|
| EAN education  | median<br>(25–75per) | p value | comparison in subgroups | p value |
| faculty of medicine (1)  | 72(64–81)            | < 0,001 | 4–1                     | 0,760   |
|  |                      |         | 4–2                     | 0,020 * |
| research assitanship (2)   | 76(68–82)            |         | 4–3                     | < 0,001 |
| course (3)   | 79(75–83)            |         | 1–2                     | 0,017 * |
| no education (4)   | 72(65–80)            |         | 1–3                     | < 0,001 |
|  |                      |         | 2–3                     | 0,009*  |
| Awareness about HS-EAST scale                                    |                      |         |                         |         |
| education about EAN  | median<br>(25–75per) | p value | comparison of subgroups | p value |
| faculty of medicine (1)  | 28(21–36)            | < 0,001 | 4–1                     | 1,000   |
|  |                      |         | 4–2                     | 0,072   |
| research assitanship (2)   | 31(27–38)            |         | 4–3                     | < 0,001 |
| course (3)   | 46(44–48)            |         | 1–2                     | 0,073   |
| no education (4)   | 27(20–36)            |         | 1–3                     | < 0,001 |
|  |                      |         | 2–3                     | < 0,001 |

EAN: Elder Abuse and Neglect, HS-EAST: Hwalek-Sengstock Elder abuse screening test \*p &lt; 0,05

specialization training were more aware than those who received training during medicine faculty and those who did not receive any training at a statistically significant level ( $p < 0.001$ ). In terms of the awareness of anamnesis and FM findings, no statistically significant differences were determined between those who did not receive training and those who received training during the education at medicine faculty. When the data were analyzed in terms of the awareness on HT-EAST Scale, the awareness of those who received training in courses was higher than the other groups at a statistically significant level ( $p < 0.001$ ). No statistically significant differences were determined in the comparisons of other sub-groups ( $p > 0.05$ ) (Tab. 2).

When the relation between the awareness on NAE risk factors, anamnesis and physical examination findings and HS-EAST scale and the duration of working at ED was examined, it was determined that the awareness of those who worked in ED for 6–10 years and more than 10 years was more than those who had a working duration of < 1 year and those > 10 years and those whose working durations were 2–5 years at a statistically significant level ( $p < 0.001$ ). No statistically significant differences were detected between the other sub-groups ( $p > 0.05$ ). No significant differences were

determined either in terms of the risk factors and the awareness on HS-EAST scale ( $p > 0.05$ ) (Tab. 3).

The relation between the awareness of NAE anamnesis and physical examination findings and the working status was examined, and it was determined that there was a statistically significant difference between the academicians and specialist doctors and research assistant doctors and general practitioners ( $p < 0.001$ ). No statistically significant effect was determined in terms of working status relation between the risk factors and the HS-EAST scale awareness ( $p > 0.05$ ) (Tab. 4).

In our study, the risk factors of the NAE, the genders of the participants, the working durations at ED, and working status of the participants were compared; however, no statistically significant differences were detected.

When the route to be taken in case NAE was faced was analyzed, it was determined that 70% of the participants said "I would report this"; and 13% said "I am indecisive". The reasons for not reporting are given in Table 5 (Tab. 5).

## DISCUSSION

According to a compilation on elderly abuse, 10% of the elderly are exposed to abuse in the USA. In

**Table 3. Comparison of participants awareness about risk factors, history and physical examination findings of EAN and HS-EAST scale in terms of work duration for emergency department**

| Awareness about history and physical examination findings of EAN |                   |         |                           |         |  |
|--|-------------------|---------|---------------------------|---------|--|
| work duration (years)  | median (25–75per) | p value | comparison of subgroups   | p value |  |
| < 1 year   | 72(64–78)         | <0,001  | <1 year and 2–5 years     | 0,231   |  |
|  |                   |         | <1 year and 6–10 years    | < 0,001 |  |
|  |                   |         | <1 years and > 10 years   | < 0,001 |  |
| 2-5 years  | 75(65–81,5)       |         | 2–5 years and 6–10 years  | 0,297   |  |
|  |                   |         | 2–5years and > 10 years   | < 0,001 |  |
| 6-10 years   | 77(69,5–82)       |         | 6–10 years and > 10 years | 0,687   |  |
| > 10 years   | 79(72–85)         |         |                           |         |  |

HS-EAST: Hwalek-Sengstock Elder Abuse Screening Test

**Table 4. Comparison of participants awareness about risk factors, history and physical examination findings of EAN and HS-EAST scale in terms of their grades.**

| Awareness about history and physical examination findings of EAN |                   |         |                          |         |
|--|-------------------|---------|--------------------------|---------|
| grade  | median (25–75per) | p value | comparison fo subhgroups | p value |
| physician (1)  | 72(65–79)         | <0,001  | 1–2                      | 1,000   |
|  |                   |         | 1–3                      | < 0,001 |
|  |                   |         | 1–4                      | < 0,001 |
| research assistant (2)   | 73(64–81)         |         | 2–3                      | < 0,001 |
| emergency medicine specialist. (3)                               | 78(72–84)         |         | 2–4                      | < 0,001 |
| lecturer (4)   | 80(69–84)         |         | 3–4                      | 1,000   |

HS-EAST: Hwalek-Sengstock Elder Abuse Screening Test

the same study it was determined that the elderly abuse was detected in Ireland (2.2%) with the least level; and in Croatia (61.1%) with the highest level in European countries. In Asian countries, the elderly abuse was detected at the highest level in China (36.2%) and at the lowest level in India (14%) [15]. In our study, when the rate of NAE was questioned in the elderly patients who applied to ED; 82% of the participants answered that the rate was below 5%. According to the results of epidemiological studies in Turkey and in the world, these rates are expected to grow much higher in the future. When the results of similar studies in the literature were analyzed, it was determined that health professionals, especially physicians, do not know exactly how often they faced NAE, and therefore little was known about the NAE [16, 17]. One of the reasons is that there may be a large number of patients admitted to ED (41% of the participants in our study had 500 and more

patients, and 34.8% had between 151 and 500 patients). Many previous studies pointed out that the Emergency Medicine training program provides very little information on the needs and diseases of the elderly population and that Emergency Medicine Specialists did not receive adequate training in this field [18–26]. Similar studies investigated the level of knowledge, attitudes and behaviors towards NAE, and it was understood that there are many missing points in the diagnosis of NAE and how to act on the subject. In these studies, the participants reported that they had not received adequate and effective training [17, 27–31]. In our study, 81.2% of the participants stated that they were trained about the subject; however, 71% of them did not follow the up-to-date developments in the field. The reason why the training rates were so high in the study may be that it did not specify the educational framework when questioning the training of the participants.

**Table 5. The distribution of answers about ways to follow in case of encounter with aggrieved of EAN and evaluation of reasons for not reporting EAN.**

|  | number of participants (n) | percent (%) |
|--|----------------------------|-------------|
| <b>Ways to follow in EAN</b>   |                            |             |
| 1. only clinical intervention is available   | 6                          | 1,2         |
| 2. the family is warned and given suggestions  | 59                         | 11,8        |
| 3. I report EAN as judicial case   | 237                        | 47,4        |
| 4. unstable  | 65                         | 13          |
| 2 + 3  | 63                         | 12,6        |
| 1 + 2  | 20                         | 4           |
| 1 + 3  | 50                         | 10          |
| <b>Reasons for not reporting EAN</b>   |                            |             |
| I believe that physicians are adequately protected against the problems that may arise in these matters.                                       | 53                         | 10,6        |
| I can not find enough time to evaluate these patients in emergency department conditions.  | 136                        | 27,2        |
| I do not have enough knowledge and / or experience in this regard.   | 117                        | 23,4        |
| I do not want to neglect the patient-physician   | 9                          | 1,8         |
| The risk of worsening of the current conditions of the patient (family relationship...) / the patient does not want this condition to be known | 50                         | 10          |
| Others   | 15                         | 3           |
| A + B  | 46                         | 9,2         |
| B + E  | 66                         | 13,2        |
| C + E  | 8                          | 1,6         |
| Total  | 500                        | 100         |

EAN: Elder Abuse and Neglect

The relationship between the awareness and working status of the NAE anamnesis and physical examination findings was examined; and it was determined that academicians and specialist doctors, research assistants, doctors and general practitioners were more aware of this field. When the relationship between the awareness of the anamnesis and the physical examination findings was investigated in relation to the working duration in ED, it was determined that the awareness of this field increased accordingly to the duration of working at ED. This data suggests that medical school education is inadequate in this context. Not having adequate training and knowledge on the anamnesis and FM in the basic point can cause wrong intervention and is a condition that must be taken seriously. Anamnesis is the most important step in considering the abuse and neglect of the elderly [31].

If we compare where the training was conducted with the NAE risk factors and the awareness of the Hwalek-Sengstock scale, a statistically significant difference was detected between the training courses,

the training groups and the other groups. Emergency medicine specialists and academicians may have increased awareness levels because of their clinical experience and their own initiatives. It is obvious that there is a theoretical inadequacy in the faculty of medicine, and in the curricula of the specialization trainings. In this respect, there is a need to revise and organize the relevant trainings and increase the productivity. In the study, the risk factors of the NAE with the gender of the participants, the working duration in ED and the working status were compared; however, no significant differences were detected. One of the risk factors for the elderly people in NAE is the attractive financial resources of the elderly patients [32–34]. This was questioned in our study; and a small number of participants said “The socioeconomic status being high is a risk factor in NAE”. Additionally, when the data of the study were analyzed, and when it was considered that there is a high probability of diagnosing the NAE by “general appearance” and “physical examination”, emergency physicians take the physical examination findings



into account in most cases and recognize physical abuse. For this reason, economic abuse may go undetected and since they do not have adequate training in this field, they may not notice economic abuse.

In a study by Austin and Rinker [35], physical examination findings which showed abuse at the highest rate were reported as abrasion-like lesions in the skin, decubitus ulcers, and burns. Similar answers were received in our study by the participants with similar physical findings as "highly doubtful" and "moderately suspicious". When the participants were examined in terms of how they diagnosed NAE when they faced it, it was determined that the participants mostly diagnosed the cases with anamnesis, physical examination and general appearance.

The question "Is there a valid and reliable screening test for the elderly abuse?" was asked to the participants in our study; and 9% said "Yes". In the questionnaire used in the present study, the Hwal-ek-Sengstock Elderly Abuse Screening Test (HS-EAST) consisting of 14 questions was asked. The participants who answered questions about direct abuse and potential abuse answered as "frequently ask" and "certainly ask" below 50%. This suggests that the questions that might detect the direct abuse in the screening test and possible abuse are not asked; and therefore, there is a possibility of such cases being undetected. The HS-EAST awareness and working status were compared and it was determined that there was no statistically significant difference between them. This result suggests that there is little awareness of the screening test, no matter how long the working status is. When we compared the educational status and the awareness on HS-EAST, there was a significant difference between the course trainees and other groups. The inclusion of the abovementioned test in the curricula of medical faculties and in the specialist training programs may increase the awareness in this field because the test has this feature, and this may ensure that such patients are detected and not neglected.

It is seen that in the studies conducted previously, health professionals, especially physicians, are not aware of relevant laws and regulations, and medical protocols that will inform them about NAE [16, 31, 36]. Dong [37] conducted a study and reported that only 1 out of 14 cases reported such cases in NAE. In the study of Mandiracioğlu et al. [27], most of the participants stated that they did not know what to do when faced with NAE. The number of those who do not report suspicious cases in our

work is too high to be neglected (30%). On the other hand, NAE causes significant mortality and morbidity, together with psychosocial problems in the elderly [15] (Referans 15 otomatik olarak alınmamış). When it is analyzed why the participants did not report such cases, there may be many reasons such as excessive workload due to the intensity of the ED, not knowing relevant laws, not feeling self-sufficient about NAE, and increasing violence towards health employees in recent years by the relatives of patients.

## CONCLUSION

As a result, we determined that course EA awareness was higher in the NAE case in theoretical field than the other groups (the risk factors, HS-EAST, etc.). While the course EA awareness in NAE cases in practical field (anamnesis and FM findings) is higher than the EA during the specialist training, the lowest awareness was determined in those who did not receive EA and education in medicine faculty was similar, which shows the importance of education. It must be taken seriously because there are missing points in the anamnesis and FM, which are the most basic steps of the education taken in the medical faculties. Considering the scientific studies on NAE in many countries, particularly in the United States, which started many years ago, it is possible to claim that the development in protective and preventive measures are in early stages in Turkey. For this reason, we want to emphasize the need for different studies on this population for future research.

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